

## Five-year Review Report

Site:	Quality Plating
ID #:	MOD 980860555
Block:	80
Other:	9-29-04

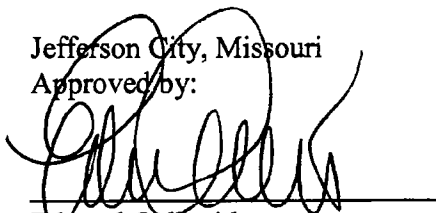
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### First Five-year Review Report for the Quality Plating Site Sikeston Scott County, Missouri August 2004

#### PREPARED BY:

Missouri Department of Natural Resources  
Hazardous Waste Program

Jefferson City, Missouri  
Approved by:



Edward Galbraith  
Director  
Hazardous Waste Program

Date:

9/23/04

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SUPERFUND RECORDS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

9 SEP 2004

MEMORANDUM

SUBJECT: Quality Plating, EPA ID # 071S  
First Five-Year Review Report

FROM: *SEK*  
Steven E. Kinser, Remedial Project Manager  
Missouri/Kansas Remedial Branch

THRU: Steve Kovac, Chief *SK 9/23/04*  
Missouri/Kansas Remedial Branch

TO: Cecilia Tapia, Director  
Superfund Division

The state of Missouri is the lead agency and the Environmental Protection Agency (EPA) is the support agency for this site. The attached five-year review report, dated 09-23-2004, was prepared by the Missouri Department of Natural Resources' Hazardous Waste Program in consultation with EPA, Region 7. This is the first five-year review for the site.

The first five-year review report concludes that the remedy at the Quality Plating site is, and should remain, protective of human health and the environment based upon the available data.

The EPA, Region 7, concurs with the above conclusions and recommendations.

Attachment

*Cecilia Tapia*  
\_\_\_\_\_  
Cecilia Tapia, Director  
Superfund Division  
U.S. Environmental Protection Agency, Region 7

*9/23/04*  
\_\_\_\_\_  
Date

## Five-Year Review Report

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### **List of Acronyms**

Agencies	Missouri Department of Natural Resources and Environmental Protection Agency combined
ARARs	Applicable or Relevant and Appropriate Requirements
department	Missouri Department of Natural Resources
DHSS	Division of Health and Senior Services
USEPA	United States Environmental Protection Agency
FIG	Further Investigation of Groundwater
MNA	Monitored Natural Attenuation
NCP	National Contingency Plan
NPDES	National Pollutant Discharge Elimination Permit
NPL	National Priorities List
PM	Project Manager
PRG	Preliminary Remediation Goal
RA	Remedial Action
RAO	Remedial Action Objective
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SSC	State Superfund Contract
TBC(s)	To Be Considered(s)

## **Executive Summary**

The U.S. Environmental Protection Agency (USEPA) conducted a time-critical removal action in 1992 that addressed soil contamination at the Quality Plating Site. Following this, the Missouri Department of Natural Resources (department) conducted an investigation of the groundwater. The groundwater investigation delineated the extent of groundwater contamination and revealed that hexavalent chromium was the primary contaminant of concern. The Record of Decision (ROD) selecting the groundwater remedy was signed by the USEPA on January 24, 1995. The remedy selected was to pump contaminated groundwater through two extraction wells, treat the groundwater by reduction/precipitation, and discharge the treated groundwater to Ditch Number 4, approximately 4,000 feet east of the site.

The department conducted groundwater sampling during the remedial design, which revealed a significant decrease in hexavalent chromium concentration. Based on this new information, the department and USEPA concluded that the selected remedy might not be the most appropriate and cost-effective alternative to address groundwater contamination at the site. As a result, the agencies re-evaluated the proposed remedial action, resulting in a ROD Amendment that was drafted by the department and signed by the USEPA on September 28, 1999. The ROD Amendment selected a new remedy, monitored natural attenuation (MNA). The MNA remedy includes three components:

- Natural attenuation processes that act without human intervention to transform hexavalent chromium to the less toxic trivalent form. Trivalent chromium is less soluble, and thus less mobile than hexavalent chromium. Under alkaline to slightly acidic conditions, it precipitates as a fairly insoluble hydroxide.
- Annual groundwater monitoring to demonstrate that: natural attenuation is occurring; plume is not expanding; there are no significant impacts to down gradient receptors; and institutional controls are effective.
- Institutional controls to ensure that no drinking water wells will be installed in the contaminated plume.

The trigger date for the five-year review is the signing date, September 28, 1999, of the closeout report for the remedial action (RA). The assessment of the five-year review found the remedy is in accordance with the requirements of the ROD and ROD Amendment. No new or significant information was discovered during this review to indicate that the remedy is not functioning as designed. The ROD Amendment stated that annual sampling would be evaluated along with private well sampling to determine the effectiveness of the remedy. Private well sampling was conducted; however, the onsite monitoring wells have not been sampled during the review period. Sampling of on site monitoring wells is slated for October of this year, which will provide further information regarding the effectiveness of the remedy. Once the data is received, the department will then prepare a Five-year Review Amendment assessing the effectiveness of the remedy.

### Five-year Review Summary Form

SITE IDENTIFICATION		
Site name <b>Quality Plating</b>		
USEPA ID (from WasteLAN): <b>MOD 980860555</b>		
Region: <b>VII</b>	State: <b>MO</b>	City/County: <b>Sikeston, Scott</b>
SITE STATUS		
NPL status: <b>Final</b>		
Remediation status: <b>Operating</b>		
Multiple OUs? <b>NO</b>	Construction completion date: <b>9/28/1999</b>	
Has site been put into reuse? <b>NO</b>		
REVIEW STATUS		
Lead agency: <b>State</b>		
Author name: <b>Jill K. Bruss</b>		
Author title: <b>Project Manager</b>	Author affiliation: <b>Missouri Department of Natural Resources</b>	
Review period: <b>03/04 – 7/04</b>		
Date(s) of site inspection:		
Type of review: <div style="text-align: center; margin-top: 10px;"><b>NPL State-lead Policy Review</b></div>		
Review number: <b>First</b>		
Triggering action: <div style="text-align: center; margin-top: 10px;"><b>Preliminary Closeout Report</b></div>		
Triggering action date (from WasteLAN): <b>9/28/1999</b>		
Due date (five years after triggering action date): <b>9/28/2004</b>		

\* ["OU" refers to operable unit.]

\*\* [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

## **Five-year Review Summary Form, continued**

### **Issues:**

There has not been any routine annual monitoring for the site during this five-year review period, an institutional control mechanism to prohibit groundwater use on the site has not been executed, and Monitoring Well OW5-B appears to have some damage to the surface protective casing.

### **Recommendations and Follow-up Actions:**

The State Superfund Contract (SSC) is expected to be finalized by September 2004 and the first annual sampling is anticipated during October 2004. After this round of data is received, the department will issue an amendment to this five-year review which evaluates the sampling results. An agreement should be reached with the landowner to install an institutional control mechanism by September 2004 to prohibit the drilling of drinking water wells on the site and monitoring well OW5-B will be repaired if needed.

### **Protectiveness Statement(s):**

The department and USEPA have determined the remedy to be protective. However, the final protectiveness determination of the remedy at the Quality Plating Site cannot be made until further information is obtained. Further information will be obtained by taking the following actions: annual sampling will occur over the next five-year period and after the first round of sampling has occurred; an amendment to this five-year review will be added with a definitive protectiveness statement. It is expected that these actions will take approximately nine months, at which time the department will issue a protectiveness determination.

### **Long Term Protectiveness:**

The department will verify the long-term protectiveness of the RA by the continued reporting of annual sampling data from the on-site monitoring wells. This data will be used to evaluate if natural attenuation of hexavalent chromium is continuing to occur.

### **Other Comments:**

There are no other comments to make at this time.



**Quality Plating  
Sikeston, Missouri  
Five-year Review Report**

**I. Introduction**

The purpose of a five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, five-year review reports identify issues found during the review, if any, and recommendations to address them.

The Missouri Department of Natural Resources is preparing this five-year review on behalf of the U.S. Environmental Protection Agency (USEPA) pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §121 and the National Contingency Plan (NCP). CERCLA §121 states:

*If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The department interpreted this requirement further in the NCP; 40 CFR §300.430(f)(4)(ii), which states:

*If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

This is the first five-year review for the Quality Plating Site. The triggering action for this statutory review was the signing of the closeout report for the remedial action, September 28, 1999. The five-year review is required because hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure.

The department conducted the five-year review of the remedial actions implemented at the Quality Plating Site in Sikeston, Missouri. This review was conducted by the project manager (PM) for the entire site from March 2004 through July 2004. This report documents the results of the review.

## II. Site Chronology

**Table 1: Chronology of Site Events**

Event	Date
Quality Plating engaged in Electroplating	1978 - 1983
Proposal to the National Priorities List (NPL)	10/15/1984
Preliminary Assessment Completed	1/11/1985
NPL listing Final	6/10/1986
Removal Assessment	1990 - 1992
Time-Critical Removal Action	8/92 - 9/92
Risk Assessment Completed	10/2/1992
Record of Decision (ROD) Signed	1/24/1995
Combined RI/FS	1988 - 1995
Remedial Design (RD) & Close Out Report	1996 - 1999
ROD Amendment	9/28/1999

## III. Background

### Physical Characteristics

The Quality Plating Superfund Site is located on Scott County Highway 448, north of Sikeston, Missouri. The topography of the area is characterized by a slightly rolling landscape to the north and west and relatively flat terrain in the southeasterly direction. The site is on the northern portion of the Sikeston Ridge, a relatively flat terrace averaging about 20 feet higher in elevation than the adjacent lowlands to the north, east, and west. The elevation in the immediate area is approximately 325 feet above sea level with local relief being approximately 20 feet. Surface drainage from the site is to the east to a tributary of St. Johns Ditch. Sikeston is located in the extreme southeast corner of Missouri, in Scott County (Figure 1). Site groundwater levels vary seasonally. The lowest occur in the fall, averaging 312.9 feet above mean sea level, while the highest occur in spring, averaging 314 feet above mean sea level. The depth to groundwater at the site is approximately ten feet.

## **Land and Resource Use**

There are six residences within an approximate 1/4-mile distance from the site and all have private wells for a drinking water source. The surrounding land use is primarily for agricultural purposes (row crops). The existing landowner raises cattle on the site and an adjacent landowner raises horses.

## **Site Geology and Hydrogeology**

The Quality Plating Site is located in the Mississippi Embayment of the Gulf Coastal Plain physiographic province. Geologically, the Mississippi Embayment is a syncline which plunges to the south and whose axis generally parallels the Mississippi River. Locally, the terrace on which the site is located is an alluvial landform produced by alternate aggradation and degradation of the Ohio and Mississippi Rivers. The sandy surface of the terrace is covered by a closely spaced network of braided stream channels. The interbraids are peppered with hollowed mounds of sand which are referred to as blowouts. One of these features is located on the site and was used as the wastewater lagoon. The soil survey from Scott County, Missouri, identifies the soil at the site as belonging to the Scotco series. This series consists of deep, excessively drained, rapidly permeable soils.

The site is underlain by approximately 200 feet of alluvium consisting of sand and gravel. Area well logs show only minor clay or silt present in the upper five feet of alluvium. The alluvium is recharged by precipitation and to lesser degree by streams, drainage ditches, and rivers during high stages. Discharge from the alluvium is by natural drainage into a few streams in the Sikeston Ridge area, the Mississippi River, manmade drainage ditches, evapo-transpiration, and groundwater usage. Underlying the alluvium is the Porters Creek Formation which consists of about 35 feet of uniform, dark clay.

## **History of Contamination**

The Quality Plating Site consists of a filled-in one-acre lagoon and the remains of a manufacturing plant. From 1978 until the facility was destroyed by fire in February 1983, the Quality Plating Site was engaged in contract electroplating of common and semi-precious metals. Untreated wastewater (origination from the flow-through rinse tanks) as well as acid, alkaline, and metal-plating batch solutions were continuously discharged into the unlined lagoon at an estimated rate of up to 10,000 gallons per day. Sludge, which was derived from plant operations, was buried in a sludge pit in the southwestern portion of the site. The state detected elevated levels of chromium and lead in an on-site well. The state had also repeatedly cited the company for discharging untreated plating waste to subsurface waters of the state, in violation of the company's National Pollutant Discharge Elimination System (NPDES) permit.

## **Initial Response**

The USEPA conducted a Phase I Remedial Investigation (RI) at the Quality Plating Site between December 1991 and February 1992. Results of the RI identified significantly elevated levels of heavy metals in the soils and sludge in the sludge pit area. In addition, elevated levels of total chromium were detected in the shallow groundwater.

As a result, the USEPA conducted a time-critical removal action at the site that addressed the immediate health threats posed by the contents of the sludge pit. Approximately 900 cubic yards of contaminated sludge pit waste were excavated and transported off-site for final treatment and disposal. Confirmation sampling and analysis was conducted and verified that soil cleanup levels had been achieved.

The USEPA completed a Further Investigation of Groundwater (FIG) Report in October 1993. The FIG revealed that hexavalent chromium was the primary contaminant of concern at the site because of its toxicity, solubility, and highly mobile nature. Concentrations of hexavalent chromium were detected on-site at levels up to 1,206 µg/L, which exceeded the site designated health based level of 18 µg/L. A Feasibility Study was completed in June of 1994 in order to identify the most cost effective and appropriate remediation activities at the site. A ROD, selecting the remedy, was signed by the USEPA on January 24, 1995. The remedy selected was to extract contaminated groundwater through two extraction wells, treat the groundwater by reduction/precipitation, and discharge the treated groundwater to Ditch Number 4 approximately 4,000 feet east of the site.

The department initiated RD activities in April 1997. The initial phases of the RD entailed the installation and sampling of the extraction and monitoring wells to understand the current groundwater conditions and contaminant levels. Analytical results of the groundwater samples showed that although the size of the plume has not changed, the concentration of hexavalent chromium has decreased, especially in the area of high concentrations. This area of high concentration occurs in the 25 foot below ground surface zone of the aquifer. In 1993, concentrations from this zone were approximately 1,000 µg/L compared to approximately 100 µg/L in July 1997. Another round of sampling conducted in October 1997 confirmed these results.

A possibility for the decreased hexavalent chromium in the aquifer is that hexavalent chromium, through a natural process, may be reducing to trivalent chromium and precipitating out of solution. The precipitated trivalent chromium, which is relatively insoluble in water, would adsorb to soils and not be detected in groundwater samples.

Based on this new information, the agencies concluded that the selected remedy might no longer be the most appropriate alternative to address groundwater contamination at the site. In addition, since the signing of the ROD, new treatment technologies have become available and more knowledge of the natural attenuation process has been gained. As a result, the agencies determined to re-evaluate the remedial action in light of the new information.

## **Basis for Taking Action**

The following is a list of the hazardous substances, which have been released at the Quality Plating Site.

**Groundwater:** Chromium, Hexavalent Chromium, Iron, Lead, Manganese, Nickel and Zinc.

**Soil:** Chromium, Nickel, Zinc.

**Surface Water:** Chromium, Nickel, Zinc.

## **IV. Remedial Actions**

### **Remedy Selection**

The selected remedy in the 1995 ROD was extraction of contaminated groundwater through two extraction wells, treatment of the contaminated groundwater by reduction/precipitation, and discharge of the treated groundwater to Ditch Number 4 approximately 4,000 feet east of the site. Institutional controls (a groundwater-monitoring program) would be implemented to monitor the plume and remediation process.

The USEPA conducted groundwater sampling during the remedial design which revealed a significant decrease in hexavalent chromium concentration. Based on this new information, it was concluded that the selected remedy might not be the most appropriate and cost-effective alternative to address groundwater contamination at the site. As a result, the department and USEPA made a determination to re-evaluate the remedial action in light of the new information. The re-evaluation resulted in a ROD Amendment that was drafted by the department and signed by the USEPA on September 28, 1999. The response action selected in the ROD Amendment is the final remedy for the site and will address the contamination at the site not addressed during the soil removal action. The response action involves reducing hexavalent chromium (the primary contaminant of concern) concentration in groundwater to below the preliminary remediation goal (PRG) for the site. The health risk-based PRG established for the site is 18 micrograms per liter ( $\mu\text{g/L}$ ). Reducing the hexavalent chromium concentration in groundwater to below the PRG will return the groundwater at the site to its beneficial uses.

The selected remedy for the site is MNA and institutional controls. The selected remedy includes three components:

- Natural attenuation processes that act without human intervention to transform hexavalent chromium to the less toxic trivalent form. Trivalent chromium is less soluble and thus less mobile, than hexavalent chromium. Under alkaline to slightly acidic conditions, it precipitates as a fairly insoluble hydroxide;
- Annual groundwater monitoring to demonstrate that: natural attenuation is occurring; plume is not expanding; there are no significant impacts to down gradient receptors; and

institutional controls are effective. If future site data indicate the need for a change in monitoring frequency or the addition of new monitoring wells, then such measures should be taken to ensure the achievement of the monitoring goals. Furthermore, monitoring should continue for a minimum of three years after the PRG for the site has been achieved to ensure that concentration levels are stable; and

- Institutional controls will be implemented to ensure that no drinking water wells will be installed in the contaminated plume. This may be achieved through monitoring and by executing an agreement with the current property owners. In the event that groundwater monitoring reveals no significant decrease in hexavalent concentration after five years of monitoring and the plume appears to be expanding and threatening down gradient receptors, a contingency remedy will be implemented.

## **Remedy Implementation**

### **System Operations/Operation and Maintenance (O&M)**

**Table 2: Annual System Operations/O&M Costs**

<b>Dates</b>		<b>Total Cost rounded to nearest \$1,000</b>
<b>From</b>	<b>To</b>	
1999	2004	No Costs to date, due to State Superfund Contract not being finalized.

#### **V. Progress Since the Last Review**

This was the first Five-year review for the site.

#### **VI. Five-year Review Process**

##### **Administrative Components**

The Five-year review was conducted by Jill Bruss of the department, a project manager. Steve Kinser of the USEPA assisted in the review as the representative for the support agency.

The review included the following components:

- Community Involvement
- Document Review
- Data Review
- Site Inspection
- Local Interviews, and
- Five-year Review Report Development and Review

## **Community Involvement**

A public comment notice was run in the Sikeston newspaper on April 29, 2003, stating that the five-year review was taking place. After the five-year review is completed, the department will host an availability session at the public library in Sikeston, Missouri. The availability session will share information about the five-year review. A copy of the report will be made available in the site's administrative record.

## **Document Review**

This five-year review consisted of a review of relevant documents including the early decision documents and available monitoring data. Applicable groundwater cleanup standards as listed in the 1995 ROD and 1999 ROD Amendment were reviewed.

## **Data Review**

This five-year review consisted of a review of five years of private well sampling data conducted by the DHSS. No monitoring data of the current monitoring well network during this five-year review period, however an amendment will be added to this five-year review will be added late fall after the first round of sampling.

## **Site Inspection**

A site inspection was conducted in May 2004. The site inspection did not identify any significant issues, which vary from the 1995 ROD and the 1999 ROD Amendment.

## **Interviews**

Site interviews were not conducted specifically for this five-year review; however conversations have taken place routinely over the past five years between representatives of the USEPA, department, and current landowner.

## **VII. Technical Assessment**

### **Question A: Is the remedy functioning as intended by the decision documents?**

The remedy is thought to be functioning as intended; however, only private well data, has been taken during the five-year period. Sampling of the on-site monitoring wells is anticipated during October 2004 and an amendment to this five-year review will be added with the additional data. On-site well sampling has not been conducted due to administrative delays in finalizing the State Superfund Contract for the site. EPA is expected to sign the State Superfund Contract by September 30, 2004. This action will allow monitoring well sampling to be completed in October 2004.



**Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) established at the time of remedy selection still valid?**

There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy.

**+Changes in Standards and To Be Considereds (TBCs)**

The Applicable or Relevant and Appropriate Requirements (ARAR)s still must be achieved as specified in the ROD and ROD Amendment. There have been no changes in those ARARs and no new standards or TBCs affecting the protectiveness of the remedy.

**Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics**

The exposure assumptions used to develop the Human Health Risk Assessment included both current and potential future exposures.

**Question C: Has any other information come to light that could call into question the protectiveness of the remedy?**

There is no other information that calls into question the protectiveness of the remedy. An amendment to this five-year review will be added after the first round of sampling is completed from the on-site wells. The data collected during the next five-year review period will document whether the remedy is functioning properly, resulting in protectiveness. There are no newly identified ecological risks and there are no impacts from natural disasters.

**Technical Assessment Summary**

The remedy appears to be operating as specified in the ROD and ROD Amendment. However due to the lack of samples during this five-year review period, an amendment will be added following our first round of monitoring, which is expected to be in October, to verify the protectiveness of the remedy. The next five-year review period will produce data to verify the protectiveness of the system.

## VIII. Issues

**Table 3: Issues**

Issues	Affects Current Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Lack of Monitoring Well Data during 5yr review period.	N	Y
Monitoring Well OW5-B is missing a lock, and has possible damage to well.	N	N
Institutional Controls are not in place preventing drilling of wells on the Site.	N	Y

If sampling is not conducted, there will be a direct, negative effect on the remedy. MNA depends on monitoring to be an effective remedy. The only issue found and evaluated could have a direct affect on remedy. Sampling of the on-site monitoring wells was not conducted during this five-year review period. The first round of sampling is scheduled to happen this October (2004). Sampling of nearby private drinking water wells indicated that there is no migration of contaminants from the site to the private wells. For this reason, it is assumed the remedy is still being protective thus far, however sampling of the onsite wells will indicated whether MNA is occurring as predicted. The department will amend this review to indicate the results of this sampling when they become available.

## IX. Recommendations and Follow-up Actions

**Table 4 Recommendations and Follow-up Actions**

Recommendations/ Follow-up Actions	Lead Agency	Oversight Agency	Milestone Date	Follow-up Actions: Affects Protectiveness (Y/N)	
				Current	Future
Amend five-year review report after monitoring well sampling in 2004.	MDNR	USEPA	12/01/04	N	Y
Replace lock on Monitoring Well OWB-5 and make needed repairs.	MDNR	USEPA	9/30/05 <del>9/31/04</del>	N	N
Install institutional control mechanism to prevent installation of drinking water wells on the Site.	MDNR	USEPA	9/30/05 <del>9/31/04</del>	N	Y

The issue regarding lack of sampling data during this five-year review period will be resolved by finalizing the SSC and performing annual groundwater monitoring over the next five-year review period. The first round of sampling is expected in October. After the results are received and reviewed, the department will issue an amendment to this five-year review.

At this time, there are no recommendations for improvements to the current site operations, activities, remedy, or conditions at the Quality Plating Site. If review of the first round of sampling calls any question to the protectiveness of the remedy, it will be corrected in the five-year review amendment, expected in the fall of 2004.

#### **X. Protectiveness Statement(s)**

Based on the available data the remedy at the Quality Plating Site is, and should remain, protective of human health and the environment. The department will continue to monitor the remedy, MNA for another five years or upon attainment of the groundwater cleanup goals. All immediate threats at the site have been addressed through onsite soil removal, and offsite private well data shows no current or ongoing human exposure. The department will continue monitoring, and evaluating the data over the next five years to ensure that the natural degradation of the hexavalent chromium is taking place, and that the chosen remedy remains protective.

#### **XI. Next Review**

The next five-year review for the Quality Plating Site is required by September 2009, five years from the date of this review. An amendment to this review is expected by fall 2004 following the 2004 annual groundwater-monitoring event.

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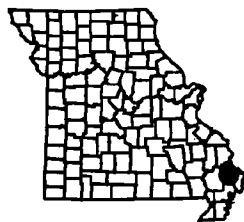
## **Attachments**

## Figures

**Quality Plating  
Signal Averaged GPS Point  
Photo-verified 1/14/2004**



Created on: DATE



**Digital Orthophoto Quarter Quad  
Dyersburg West, Sikeston North NW & NE**



**Figure 1**



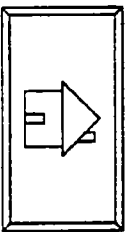
**Missouri Department of  
Natural Resources  
Air and Land Protection Division  
Hazardous Waste Program**

Although all data sets used to create this map have been compiled by the Missouri Department of Natural Resources, no warranty, expressed or implied, is made by the department as to the accuracy of the data and related materials. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the department in the use of these data or related materials.

# Quality Plating Site

North

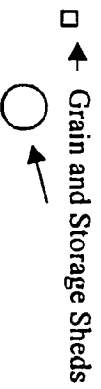
County Road 448



Residence

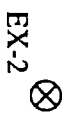
Gravel Road

Main Gate



OW-1 A, B, & C

MW-3



EX-2

MW-2

MW-4

Secondary Gate



EX-1

OW-2A, B, & C

OW-3B

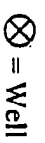
OW-5B

OW-4B

Key:

MW, EX, OW = Monitoring Well Designations

Legend: Not To Scale



= Well

Figure 2

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## **List of Documents Reviewed**

The following documents were reviewed in completing the five-year review:

- ROD including all attachments.
- ROD Amendment including all attachments.
- RA construction documents.
- Annual Private Well Sampling by the DHSS
- Other guidance and regulations to determine if any new ARARs relating to the protectiveness of the response actions that have been developed.